REMARKS

Claims 1-4 and 6-15 are pending. Claim 5 was cancelled without prejudice to, or disclaimer of, the underlying subject matter in an amendment filed June 9, 2004. No amendments are presented in the present response.

I. Rejection under 35 U.S.C. §101

Claims 1-4 and 6-15 have been rejected under 35 U.S.C. § 101 because the claimed invention allegedly lacks patentable utility. Office Action at page 2. Specifically, the Examiner alleges that the "instant application does not disclose a specific, substantial, and credible utility for SEQ ID NO: 2 or for any polypeptide that is encoded by SEQ ID NO:2." Office Action at page 2. Applicants respectfully traverse this rejection.

The specification clearly discloses that SEQ ID NO: 2 can be used to encode a 60S Ribosomal Protein L10 or fragment thereof. *See, e.g.* Specification at page 9, lines 15-17, and page 68 (Table 1). One of skill in the art would have recognized the claimed nucleic acid molecules utility, for example, to encode a 60S Ribosomal Protein L10 protein or to modify the expression of 60S Ribosomal Protein L10 upon reading the present specification. These utilities are immediately apparent for the claimed nucleic acid molecules without further research.

The Examiner has not disputed the use of SEQ ID NO: 2 in encoding a 60S Ribosomal Protein L10. Office Action at page 4. However, the Examiner alleges that "applicants confuse the identification of a function of a protein with a patentable utility under 35 U.S.C. § 101." *Id.* This position misstates the law, *see In re Fisher,* 421 F.3d

1365, 1374, 76 U.S.P.Q.2d 1225 (Fed. Cir. 2005) (concluding that ESTs "which do not correlate to an underlying gene of known function, fail to meet the standard for utility intended by Congress"), and ignores the specific, substantial, and credible utilities provided for in the specification.

It is well-established law that the "threshold for utility is not high: An invention is 'useful' under section 101 if it is capable of providing some identifiable benefit." *Juicy Whip, Inc. v. Orange Bang, Inc.*, 185 F.3d 1364, 1366, 51 U.S.P.Q.2d 1700, 1702 (Fed. Cir. 1999), *citing Brenner v. Manson*, 383 U.S. 519, 534 (1966). Furthermore, an invention need only provide one identifiable benefit to satisfy 35 U.S.C. § 101. *See Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 958, 220 U.S.P.Q. 592, 598 (Fed. Cir. 1983) ("when a properly claimed invention meets at least one stated objective, utility under section 101 is clearly shown").

In order to establish a specific and substantial utility, an applicant must disclose "that an invention is useful to the public as disclosed in its current form." *In re Fisher,* 421 F.3d 1365, 76 U.S.P.Q.2d 1225 (Fed. Cir. 2005). In addition, a specification must "also show that that claimed invention can be used to provide a well-defined and particular benefit." *Id.* Applicants have disclosed nucleic acid sequences which are shown in the specification to correlate to known genes. Such a correlation is sufficient to satisfy the utility standard. *Id.*

The "basic quid pro quo contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility...where specific benefit exists in currently available form." *Brenner v. Manson*, 383 U.S. 519, 534-35, 148 U.S.P.Q. 689, 695 (1966). As previously argued, the

Applicants have met this part of the bargain – the present specification discloses nucleic acid molecules which, in their current form, provide at least one specific benefit to the public, for example, use to encode a 60S Ribosomal Protein L10. *See, e.g.* Specification at page 9, lines 15-17, and page 68 (Table 1). This benefit is specific, not vague or unknown, and it is a "real world" or substantial benefit.

Applicants maintain that the present specification discloses specific and substantial uses for the claimed nucleic acid molecules. As noted above, the specification discloses that the nucleic acid molecules of the present invention can be used to encode 60S Ribosomal Protein L10 or fragments thereof. *See* Specification at page 9, lines 15-17, and page 68 (Table 1) and the sequence listing. In addition, the specification provides for the use of the nucleic acid molecules of the present invention in identifying polymorphisms related to 60S Ribosomal Protein L10. *See, e.g.,* specification at page 53, line 27 through page 59, line 33. Yet another utility is the use of the nucleic acid molecules of the present invention in transforming plants to modify the expression of 60S Ribosomal Protein L10. *See, e.g.,* specification at page 18, line 25 through page 30, line 12). The claimed nucleic acid molecules can also be used in determining the level or pattern of expression of the 60S Ribosomal Protein L10 protein or mRNA associated with that 60S Ribosomal Protein L10 nucleic acid molecule, for example in a cell. *See, e.g.,* specification at page 52, line 24 through page 53, line 10.

In addition, the skilled artisan would have understood the role of 60S Ribosomal Protein L10 in protein synthesis and would have recognized that the claimed nucleic acid molecules have utility, for example, to encode a 60S Ribosomal Protein L10 protein. Moreover, one of ordinary skill in the art would recognize that the claimed nucleic acid

molecules have utility, for example, to identify markers and isolate promoters associated with the 60S Ribosomal Protein L10. These utilities are immediately apparent for the claimed nucleic acid molecules upon reading the present specification without further research.

An examiner must accept a utility by an applicant unless the Office has evidence or sound scientific reasoning to rebut the assertion. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992). "More specifically, when a patent application claiming a nucleic acid asserts a specific, substantial, and credible utility, and bases the assertion upon homology to existing nucleic acids or proteins having an accepted utility, the asserted utility must be accepted by the examiner unless the Office has sufficient evidence or sound scientific reasoning to rebut such as assertion." Federal Register 66(4):1096, Utility Guidelines (2001). "[A] 'rigorous correlation' need not be shown in order to establish practical utility; 'reasonable correlation' is sufficient." *See, Fujikawa v. Wattanasin*, 93 F.3d 1559, 1565, 39 U.S.P.Q.2d 1895, 1900 (Fed. Cir. 1996). "An Applicant can establish this reasonable correlation by relying on statistically relevant data documenting the activity of the compound or composition, arguments or reasoning, documentary evidence, or any combination thereof." M.P.E.P. § 2107.03, at page 2100-43. Applicants have demonstrated such a reasonable correlation.

The specification provides ample correlation between the claimed nucleic acid molecules and the recited protein. Accordingly, the use of the claimed nucleic acid molecules to encode the recited protein or fragment thereof satisfies the utility requirement of 35 U.S.C. § 101.

The Examiner has not provided any support for the proposition that the claimed nucleic acid molecules would not work for the recited utilities; or that one skilled in the art would doubt that the claimed nucleic acid molecules would work for the utilities disclosed in the present specification. To the contrary, the Examiner has acknowledged that SEQ ID NO:2 encodes 60S Ribosomal Protein L10. Office Action page 4. Applicants have thus provided sufficient evidence to lead a person of ordinary skill in the art to conclude that the asserted utilities are more likely than not true.

In view of the above, the claimed nucleic acid molecules are supported by specific, substantial, and credible utilities disclosed in the specification. Any one of these utilities is enough to satisfy the requirements of 35 U.S.C. § 101. Consequently, the rejection of claims 1-4 and 6-10 under 35 U.S.C. § 101 is improper. Reconsideration and withdrawal of this rejection are respectfully requested.

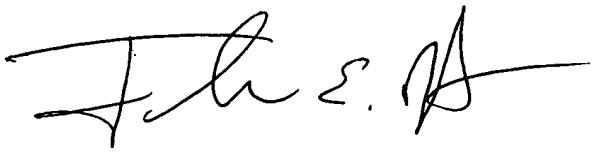
II. Rejection under 35 U.S.C. § 112, first paragraph, enablement

Claim 1-4 and 6-15 were rejected under 35 U.S.C. § 112, first paragraph, as not being enabled by the specification, because the claimed invention allegedly lacks utility (*i.e.*, an invention with no utility cannot be enabled). Applicants respectfully traverse this rejection and note that this rejection has been overcome by the foregoing arguments regarding utility. Thus, the specification teaches a person of ordinary skill to make and use the claimed transformed plants and methods. Accordingly, the enablement rejection under 35 U.S.C. § 112, first paragraph, is improper. Reconsideration and withdrawal are respectfully requested.

Conclusion

In view of the foregoing remarks, Applicants respectfully submit that the present application is now in condition for allowance, and notice of such is respectfully requested. The Examiner is encouraged to contact the undersigned should any additional information be necessary for allowance.

Respectfully submitted,



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